

NedPower Mount Storm

Grant County, WV Wind Farm



Overview

- NedPower has been working on the development of a 300 MW (200 turbines) wind farm in Grant County, WV, since January 2001.
- Wind studies have identified the project site as having a strong wind regime (data collected for 18 months, 4 wind towers).
- Land under contract (lease).
- Project widely supported.
- Start of Construction planned for Fall 2004 (Infrastructure) (Spring 2005, Turbines)

Project Sponsors

- **NedPower** in wind energy business since 1995.
- Developed wind farms in India and Germany.
- **Magellan** in energy (tax enhanced) business since 1996
- Operations in WV.



Mount Storm Project Description



- 300 MW
- Up to 200 turbines
- Produces enough energy for 60,000 households
- Turbines:
 - 1.5 to 2.0 MW
 - Typically about 335 feet high (tower plus blades).
 - Blades about 100 feet from the ground
 - Tower 15 feet diameter on 50X50 concrete patch.
- Interconnection
 - With existing 500 kV line (PJM West) crossing project site.

Location



- Grant County, WV
- Occupying less than 200 acres on 12 mile ridge.
 - Private Land
 - Land largely strip mined and logged
 - 1.5 miles East of large Mt Storm Coal fired Power Plant (1500 MW)
 - Continued to be used (by others) for grazing, hunting, etc.

Economic Benefits

- Over \$350 million investment
- Over \$500,000 per year in property taxes.
- About \$600,000 per year in land lease payments to mostly local landowners.
- \$70,000 per year in (voluntary) royalty payments to local schools.
- 200 construction jobs over a 12 month period
- About 15 highly skilled permanent jobs in operations and maintenance
- Additional Benefits: (WV Building & Construction Trade Union estimate)
 - Close to \$600,000 a year in State Taxes
 - \$25 million in new business sales in WV during construction
 - 130 (indirect) temporary jobs created.
 - WV workers wages & benefits of at least \$7.6 million.

Environmental Benefits NedPower Mt Storm

- Renewable
- Clean
 - NedPower Mt Storm project reduces Air Emissions:
 - **reduces CO₂**, 1,900 million lbs per year
(leading cause of green house effect)
 - **reduces SO₂**, 12.7 million lbs per year
(causes acid rain)
 - **reduces NO_x**, 7.2 million lbs per year
(causes acid rain)
- Minimal Impact on Wildlife
 - Area largely strip-mined and logged
 - Use of existing roads, many turbines on old strip mines
 - Project occupies < 100 acres, compared with thousands of acres still being strip mined in area.
 - Project to avoid sensitive wild life areas (e.g flying squirrel).

Project Supporters

- Overwhelming majority of people in Grant County
- WV Building & Construction Trade Union
- Senator Helmick
- Senator Ross
- Delegate Michaels
- Grant County Commission
- Grant County Development Authority
- Grant County Board of Education
- Grant County Chamber of Commerce
- Grant County Press

Regulatory

- Exempt Wholesale Generator (Federal Energy Regulatory Commission).
 - Allows company to operate in wholesale market
 - Permit Obtained July 2002

- Certificate of Convenience (WV Public Service Commission).
 - To ensure project in public interest.
 - Applied August 2002
 - Issued April 2, 2003
 - Friends of the Allegheny Front's appeal to WV Supreme Court rejected June 2003

Regulatory

- Certificate of Convenience Conditions:
 - Southern portion excluded
 - Copy
 - Permits
 - Interconnection Agreement
 - Comply with the law
 - Endangered Species Act
 - Study
 - Bats & Birds (USFWS)
 - Bats, Birds & Lights (Voluntary, during operations).

Project Steps

- 1. Site Identification
- 2. Land Sign Up
- 3. Install Wind Masts
- 4. Interconnection
- 5. Contact USFWS
- 6. Sign up Consultants/
Start Studies
- 7. Contact Stakeholders
 - County Officials
 - Neighbors/Open House
 - Environmental Community (WVHC)
- 8. PSC Application
- 7. Complete Env. Studies

Environment

- NedPower to comply with all environmental laws, including:
 - Endangered Species Act
 - Bird Migratory Treaty
- Endangered Species:
 - Northern Flying Squirrel
 - Habitat and 5 squirrels located in few small areas in southern portion.
 - NedPower will stay out of squirrel habitat and buffer zone in consultation with USFWS
 - Cheat Salamander
 - Surveys done: No presence
 - Indiana and VA Big Eared Bats
 - Biological Assessment under preparation
 - Clearance in winter



**Northern
Flying
Squirrel**

Environment (Cont)

■ Birds

- Insignificant impact on birds
- Hundreds of studies in Europe and US confirm the same.
 - For example, 60 million birds per year get killed by cars, planes and 100 million per year by buildings in the US, compared with only 40,000 to 60,000 birds per year by turbines in the US (average 1.4 bird per turbine per year).
 - Migrating birds typically fly in wide corridors and at high altitude (> 400 feet above ground).
 - Studies done by West (www.west-inc.com) in cooperation with WC ornithologists & USFWS.

- NedPower conducting following bird studies.
 - Micro-siting studies (including radar study), to minimize turbine location on breeding birds (Golden Warbler) and migrating birds.
 - During 3 years of operations, effect of lights on birds (and bats), to minimize effect Bs & Bs.
 - During operations, effect of turbines on Bs & Bs.



Golden Winged Warbler

Environment (Cont)



- Role US Fish & Wildlife Service (USFWS).
 - Monitor compliance with Endangered Species Act and Migratory Bird Treaty.
 - NedPower in regular contact with USFWS (and WVDNR):
 - To determine presence, if any, of endangered species on site.
 - To discuss mitigating measures or conservation plan if endangered species present (e.g flying squirrel)
 - To discuss design and outcome of environmental studies (e.g birds, bats).

Myths & Facts

- “Turbines are noisy”
 - Turbines are NOT noisy
 - Turbines barely or not audible beyond 900 yards.
 - Existing Mt Storm power plant and local traffic much noisier.

- “Wind Farm to take away wind in Grant County”
 - Wind Farm will not change wind in Grant County.

“Turbines to light up night sky like Ferris Wheels”

- NOT true. NedPower expects to have 1 small light on every third turbine, as required by the FAA
- “Wind Farm to reduce Property Values”
 - NOT True. Studies have indicated the opposite (enhanced local economy).

Myths & Facts (Cont)

- “FEDs require NedPower to do comply with environmental laws and studies”
 - TRUE
 - All projects will have to comply with env. laws, not just NedPower’s.
 - NedPower will and is happy to comply with all environmental laws, including, if applicable, the need to do any studies.
- “NedPower pays no property tax”
 - NOT True
 - NedPower expects to pay at least \$500,000 per year in property tax
 - Additionally, NedPower expects to pay about \$70,000 per year in (voluntary) royalties to local schools.
- “NedPower is foreign company”
 - NOT true.
 - NedPower is 100% owned by US citizens and US residents, paying US taxes.

Myths & Facts (Cont)

- “Project can be seen from all over Dolly Sods”
 - NOT True. Wind farm can only be seen from very small portion (maybe 5 to 10 acres) of Dolly Sods (over 10,000 acres area).



View of (simulated) Mt Storm project from **Raven Ridge** (most northern edge **Dolly Sods**), with turbines in background (very hard to see due to distance, 4 miles)